





# MANAGEMENT AND DEVELOPMENT

This chapter details the management, acquisition, development, and use for the property.

## VISION STATEMENT

The Black River State Forest is a healthy, dynamic forest that contributes to the diversity of natural communities within the region and is managed to provide a range of cultural, social, economic, and ecological attributes to benefit present and future generations. Compatible recreational opportunities are provided consistent with scenic beauty, natural settings, and sustainable practices. The state forest serves the needs of the people who live, work and recreate in and around it.

## PROPERTY GOALS

1. Manage the forest using principles of ecosystem management which are consistent with the capabilities of the land and waters.
2. Provide a variety of renewable forest products and wildlife habitats consistent with the forest's capabilities, sustainable forestry guidelines, and aesthetic values.
3. Protect diverse terrestrial and aquatic communities including a range of forest types, age classes, and communities unique to the forest and to the state.
4. Identify and protect endangered and threatened resources, historic properties, and areas of geological, archaeological, or cultural significance.
5. Protect and enhance wild resource values such as solitude, remoteness, and the sights and sounds of a natural environment.
6. Provide a range of quality outdoor recreational activities and settings, both motorized and non-motorized, ranging from primitive to developed, consistent with resource capabilities.
7. Minimize or prevent conflict between different recreational, forest or other management uses and activities.
8. Provide opportunities for hunting, trapping, fishing, and wildlife viewing.
9. Provide a range of educational opportunities for state forest visitors.
10. Contribute to local and regional economies through sustainable management of timber, wildlife, and recreational resources.
11. Protect additional land and water resources, where opportunities exist, to enhance public benefits or improve management efficiencies.

## GENERAL MANAGEMENT STRATEGY FOR THE STATE FOREST

The forested portions of the Black River State Forest are part of a complex ecosystem with a mix of biotic communities that provide habitat for a diversity of plants and animals. The forest consists of a mix of jack pine, oak, and aspen with an increasing component of white pine in the understory and canopy. Forested areas will be managed using sustainable forestry practices and a combination of both active and passive management to provide ecological, economic, and social benefits. Recreation management is also an important component on the Black River State Forest and will be implemented in a way that provides safe and sustainable recreational access while protecting the ecology and unique features of the forest. Scattered wetlands, streams, and flowages on the property will be managed to protect water quality and provide habitat for a variety of fish, birds, insects, and plants, including many rare species. Endangered and threatened species and their habitats will be protected through integrated and adaptive management techniques.

Figure 2.1 shows the general cover types on the Black River State Forest (Map 2.1, Appendix). For inventory purposes, forest stands are classified by their dominant cover type. This means that forest stands listed as aspen have 50% or more of their basal area in aspen trees. Most forest stands contain a mix of tree species. For example, an "aspen" area probably includes a mixture of red and white pine, red maple, and scrub oak. Therefore, two forest stands with the same dominant cover type may not have the same overall forest composition.

## LAND MANAGEMENT AREAS



## LAND MANAGEMENT AREAS

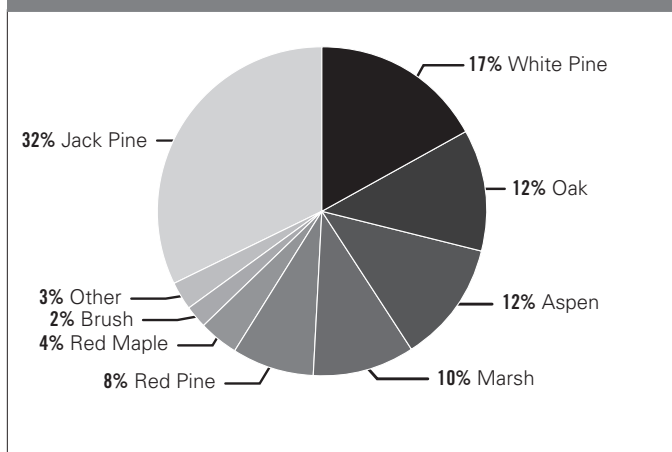
The Black River State Forest has been divided into 19 Land Management Areas: three Forest Production Management Areas, two Habitat Management Areas, 12 Native Community Management Areas, and two Recreation Management Areas (Table 2.1). Within the designated Land Management Areas, there are 10 State Natural Areas; nine located within Native Community Management Areas and one within a designated Recreation Area.

Each management area describes a unique landscape or management focus that considers soils, topography, community type, and other factors which shape the recommended management for each area. All of the management areas are shown on Map 2.2 in the Appendix.

The General Forest Management Prescriptions provided later in this chapter outline the standard management practices to be used for each forest type (e.g. aspen, white/red pine, oak, etc.). However, as management objectives vary from area to area, individual area management prescriptions may be modified from the standard prescriptions.

Each management area has specific short- and long-term objectives that articulate the future desired condition based on the ecological capabilities of the area and other factors. Because forests and landscapes change slowly, actions taken, or not taken, over the next 15 years may require 50-100 years to affect the forest as a whole.

**FIGURE 2.1 LAND COVER TYPES OF THE BLACK RIVER STATE FOREST**



Under the proposed draft plan, there are approximately 52,500 acres available for active forest management. This equates to 92% of the property's forested acreage, or 77% of the entire property. Eight percent, or 5,240 acres, of the entire property is designated to be passively managed allowing natural processes to predominate. Some of the passively managed areas are forested, but many have not been actively managed in the past due to their lack of merchantable timber, or their steep, wet, or otherwise inaccessible nature. The designation of some forested acres as passive management equates to approximately 6-8% of the forested acres on the property being removed from management. Non-forested areas, such as open water and wetlands, account for the balance of acreage unavailable for forest management.

Total Property Acres.....	68,237
Forested Acres.....	56,800
Forested Acres Available for Management.....	52,500
Passive Management Acres* .....	5,240

\* Forested acres designated as passive management areas, equate to 6-8% of the property's forested acres being removed from active forest management opportunities.

Short descriptions of the different types of management areas are below.

### Forest Production

Management activities are focused primarily on the sustainable production of timber and other forest products; however in areas of high recreation use and where site conditions allow, management can promote the production of timber on extended rotations in a manner that promotes long-term visual appeal. In addition, while managing for timber products, management activities will also promote the development and maintenance of certain ecological attributes.

### Habitat Management

Management activities are designed to provide or enhance habitat, whether upland, wetland or aquatic, to support specific species of plants or animals while still allowing for forest management.

### Native Community Management

Management activities are intended to represent, restore and perpetuate native plant and animal communities, whether upland, wetland or aquatic, and other aspects of native biological diversity while still allowing for forest management.

### Recreation Management

Management activities are focused on providing and maintaining land and water areas and facilities for outdoor public recreation or education while still allowing for forest management.



# LAND MANAGEMENT AREAS

Each Land Management Area contains the following information:

- Overview and summary
- Description of the forest resource
- Map of the area
- Current and projected land cover based on available reconnaissance data
- Short and long term objectives
- Management prescriptions

**TABLE 2.1 LAND MANAGEMENT AREAS**

Area #	Land Management Areas (% of forest)	Acres
	<b>Forest Production Management Areas (68%)</b>	<b>46,586</b>
1	Perry Creek Basin	3,038
2	Morrison and Levis Creek Basin	29,350
3	Robinson Creek Basin	14,198
	<b>Habitat Management Areas (14%)</b>	<b>9,276</b>
4	Jack Pine	4,277
5	Dike 17 Wildlife	4,999
	<b>Native Community Management Areas (15%)</b>	<b>9,979</b>
6*	Upper Black River	1,909
7*	Arbutus Oaks	215
8*	Castle Mound Pine Forest	171
9*	East Fork of the Black River	1,083
10*	Ketchum Creek Headwaters	581
11	Paradise Valley Pines	669
12*	Peatlands	1,203
13*	Catfish Eddy Terraces	745
14*	Robinson/Millston Pines	626
15	Settlement Road Pine Swamp	156
16	Stanton Pines	971
17*	Starlight Wetlands	1,650
	<b>Recreation Management Areas (3%)</b>	<b>2,396</b>
18*	Overmeyer Hills	2,241
19	Campgrounds and Day Use	155
	<b>Total</b>	<b>68,237</b>

\* Includes a designated State Natural Area



## FOREST PRODUCTION MANAGEMENT AREAS



### FOREST PRODUCTION MANAGEMENT AREAS

The general management objective of a forest production area is the sustainable production of forest products. Forest production areas also meet a wide range of ecological and recreation objectives. The specific objectives for any given management area may vary depending on site capability, forest types, and societal needs. Desired associated benefits, desired future conditions, adjacent land uses, and local economic conditions all influence the objectives as well.

In areas of high recreation use or scenic value and where site conditions allow, management can promote the production of timber on extended rotations in a manner that promotes long-term visual appeal. In addition, while managing for timber products, management activities will also promote the development and maintenance of certain ecological attributes to protect unique habitats.

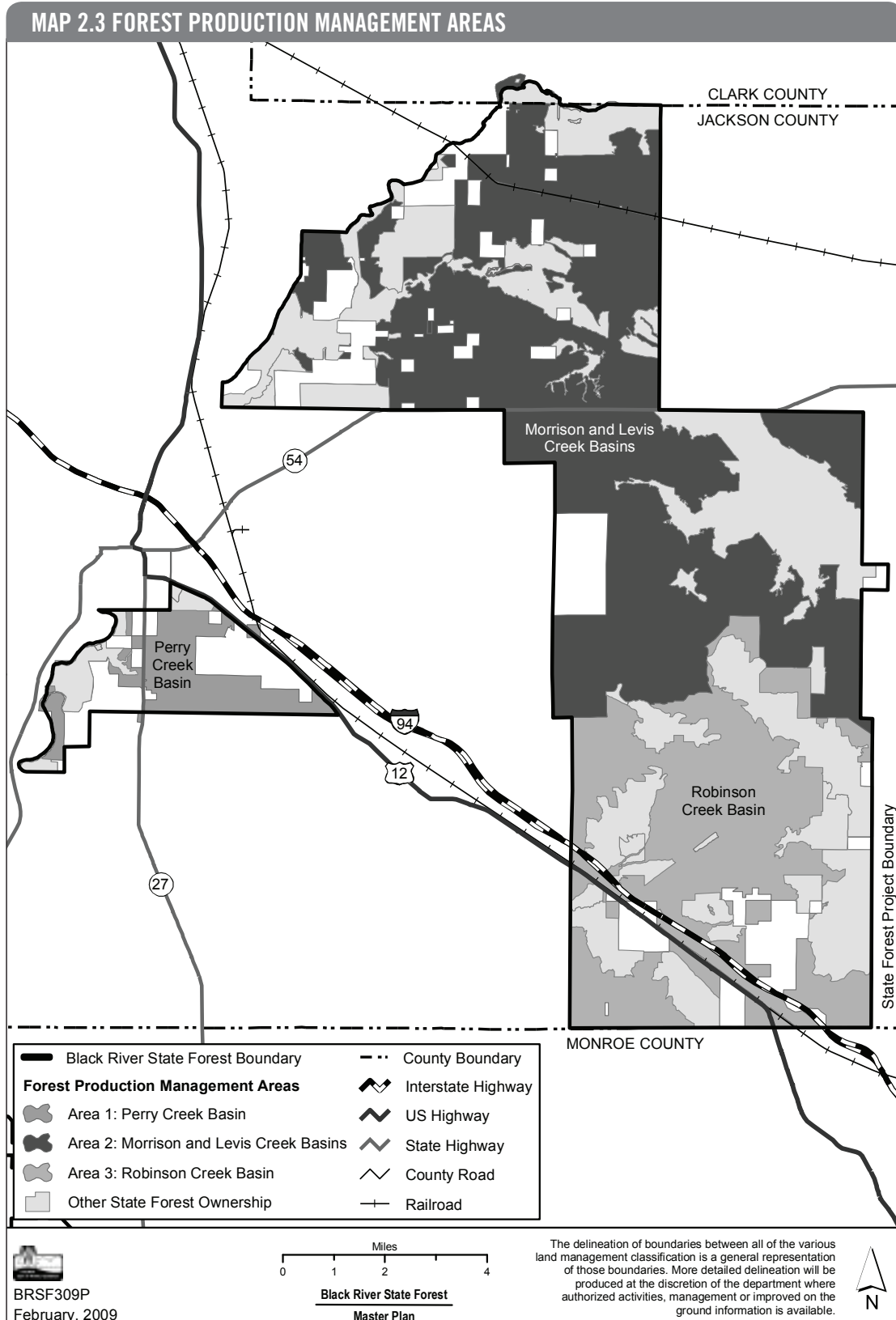
Please refer to the General Forest Management Prescriptions on page 98 for prescriptions by forest type. These prescriptions apply and all management activities are authorized, except as noted below for these management areas.

**TABLE 2.2 FOREST PRODUCTION MANAGEMENT AREAS**

Area #	Forest Production Management Areas	Acres
1	Perry Creek Basin	3,038
2	Morrison and Levis Creek Basin	29,350
3	Robinson Creek Basin	14,198
	<b>Total</b>	<b>46,586</b>



## FOREST PRODUCTION MANAGEMENT AREAS





## AREA 1: PERRY CREEK BASIN

This 3,038 acre area is located south of Black River Falls and Brockway and includes land west of I-94 and east of the Black River. State Highways 12 and 27 and other township roads transect this parcel. The area is a relatively broad plain of flat to slightly rolling, dry and poorly drained (wet) alluvial sandy soils, as is characteristic of the state forest. The topography becomes steeper near the Black River where slopes may range from 15-45% between hilltop terraces and the floodplain.

A major complex of privately owned flowages and cranberry beds is located on the east side at the upper reaches of Perry Creek. In addition, private land, including year-round and seasonal residences, is adjacent to much of this area. Due to the relatively small size and nearness to the community of Black River Falls, there are no large blocks of remote land.

### Description of the Forest Resource

This area is comprised of both upland and lowland forest. Due to a wildfire which burned over 3,000 acres in 1977, this area of the forest includes 1,714 acres of even-aged aspen, oak, and re-planted red pine plantations. Two jack pine stands consumed in the fire were planted to red pine shortly after salvage was completed. Jack pine is a minor component within the fire-regenerated aspen and oak stands, although occasionally a small patch of dominant jack pine is found in the burn area.

### AREA 1 SUMMARY

- ▲ Increase age diversity of trees in the forest.
- ▲ Maintain aspen as a significant component of the forest.
- ▲ Maintain the aesthetic appeal of the forest, particularly along key corridors.
- ▲ Buffer native communities along the Black River and Perry Creek corridor.
- ▲ Manage for long-lived species like oak, white pine, and red pine.

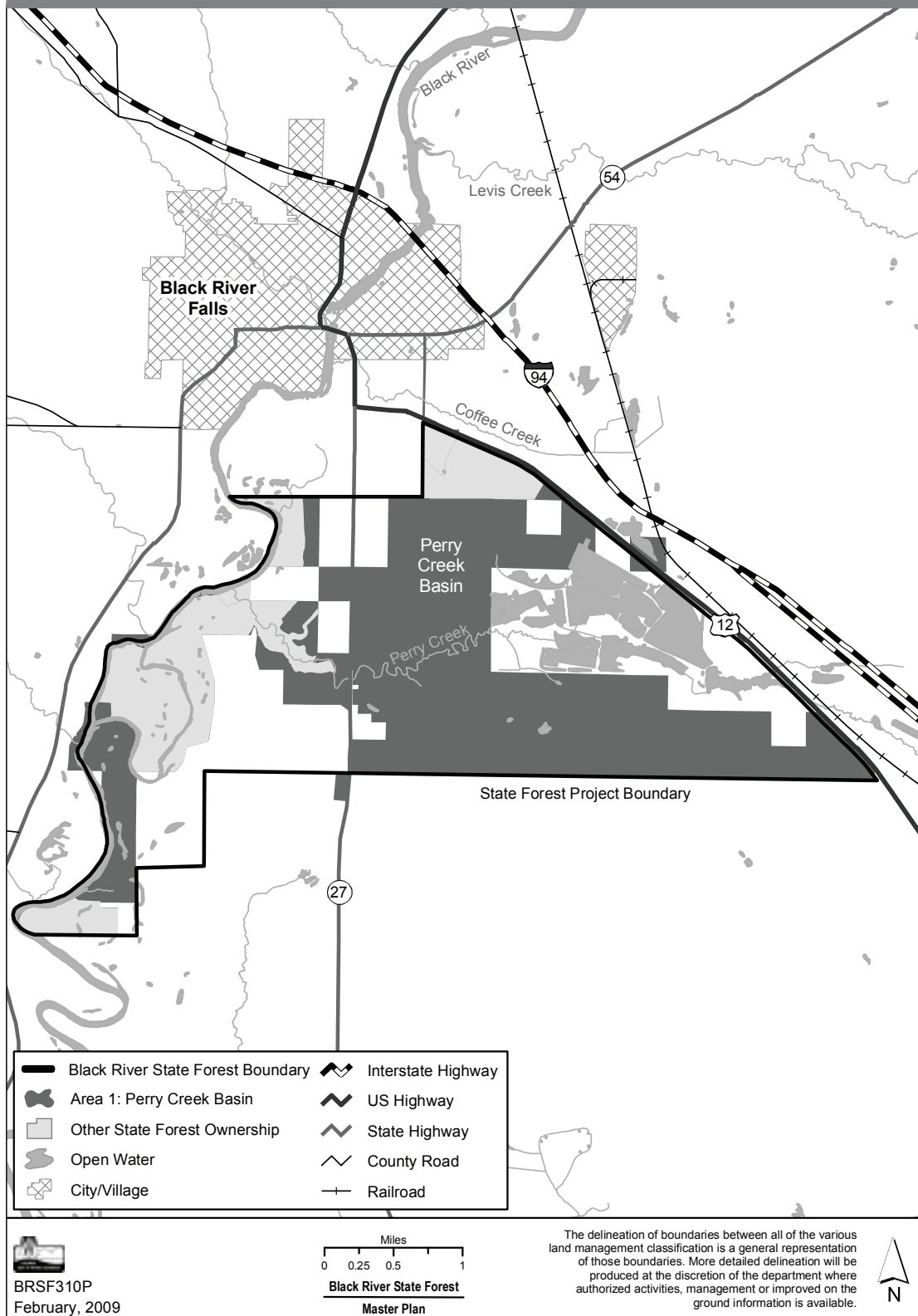
### AREA 1 LOCATOR MAP







MAP 2.4 PERRY CREEK BASIN







### Long-Term Management Objectives (100 years)

Perry Creek basin will provide a continuous supply of forest products. Aspen and oak will continue to be dominant cover types, with a potential increase in acreage and a wider diversity of age classes. Red pine plantations will be converted to native cover types with a preference for oak. Bottomland hardwood stands will continue to thrive and contribute to the aesthetic and ecological integrity of adjacent native community management areas. White pine acreage will increase slightly with more large, older trees present. The Perry Creek Basin will continue to be an attractive setting for people to recreate, especially along the Black River and Perry Creek corridors. Ample hunting and wildlife viewing opportunities will be available.

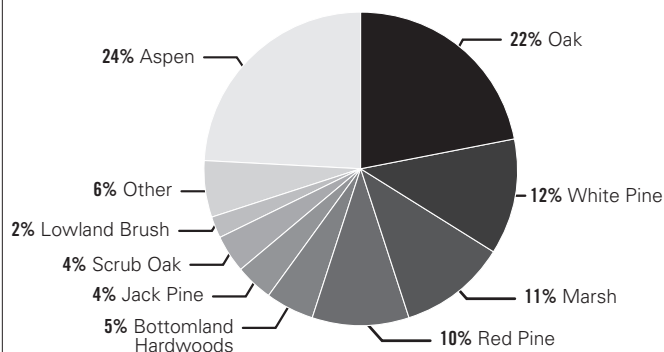
### Short-Term Objectives (50 years)

- Maintain the diversity of cover types, improve the diversity of age classes for aspen and oak, and maintain jack pine if/when opportunities exist.
- Maintain aesthetic appeal (such as large trees), forest health, native community habitat (small pockets of barrens, white pine-red maple swamp), and wildlife habitat.
- Maintain aspen as a significant component in mixed or pure stands, and spread harvests over a slightly larger range of rotation as described in the DNR Silviculture and Forest Aesthetics Handbook to diversify age classes.
- Favor long-lived species where appropriate along interstate and state highways and the Black River corridor.
- Manage bottomland hardwoods and pine stands in floodplain and lower terraces to compliment the native community qualities, such as large trees, found on Hawk Island and upstream at the confluence of Perry Creek with the Black River.
- Plant open fields acquired through land acquisition with tree species suitable to the site.

### Area Specific Resource Management Prescriptions

The entire area is managed using “active management” techniques and will be implemented following guidelines in the DNR Silviculture and Forest Aesthetics Handbook. The General Forest Management Prescriptions for each appropriate forest type apply to this management area.

**FIGURE 2.2 PERRY CREEK BASIN  
CURRENT LAND COVER**



**TABLE 2.3 PERRY CREEK BASIN  
CURRENT AND PREDICTED LAND COVER**

Cover Type	CURRENT		PREDICTED 50 YEAR	
	Acres	% Total	Acres	% Total
<b>Forested Types</b>				
Aspen	736	24%	736	24%
Oak	678	22%	678	22%
White Pine	348	12%	378	13%
Red Pine	300	10%	300	10%
Bottomland Hardwoods	151	5%	151	5%
Jack Pine	131	4%	131	4%
Scrub Oak	121	4%	91	3%
<b>Non-forested Types</b>				
Marsh	317	11%	317	11%
Other	191	6%	191	6%
Lowland Brush	65	2%	65	2%
<b>Total</b>	<b>3,038</b>	<b>100%</b>	<b>3,038</b>	<b>100%</b>





## AREA 2: MORRISON AND LEVIS CREEK BASIN

This area, comprised of 29,350 acres, stretches from the Clark County line south to the north slopes of Overmeyer Hills to a few un-named isolated hills on the west property boundary. This productive forest land lies in Adams, Komensky, and Millston townships.

This area is part of the central sand plain of eastern Jackson County that has mostly level topography with some dry but predominantly hydric soils (swampy). Morrison and Levis Creeks are two main streams originating out of sphagnum marshes that cross the state forest from east to west and join the Black River.

State Highway 54, County Highway K, and North Settlement Road are located in this management area and require aesthetic and scenic management considerations in all forestry operations.

Two Native American (Ho-Chunk) communities are located north of Highway 54 on the west boundary and are within the boundary of the state forest. The area between Highway 54 and the Clark County line has some small private land holdings with and without homes and cabins. South of Highway 54 there are no private land holdings within the existing state forest boundary, making it one of the more remote locations on the property.

### Description of the Forest Resource

This area is comprised of both dry upland and moist to wet lowland forest. The predominant forest cover type is jack pine (mostly of natural origin) growing on dry and moist sandy soils. Natural white pine stands, mixed with some oak, are found along stream banks and wet forest sites; the oldest stands date back to the 1900s, near the end of the logging era.

The jack pine forest in this area became established in the 1930s following re-settlement and wildfire protection and suppression. Planting of pine began in 1937 by federal agencies and continued through 1954 when the land was acquired by the State of Wisconsin. Most of the plantations reforested agricultural fields and pastures of failed farms. Red pine was the only species planted by the state forest from the 1950s until the jack pine budworm outbreak in 1991-94.

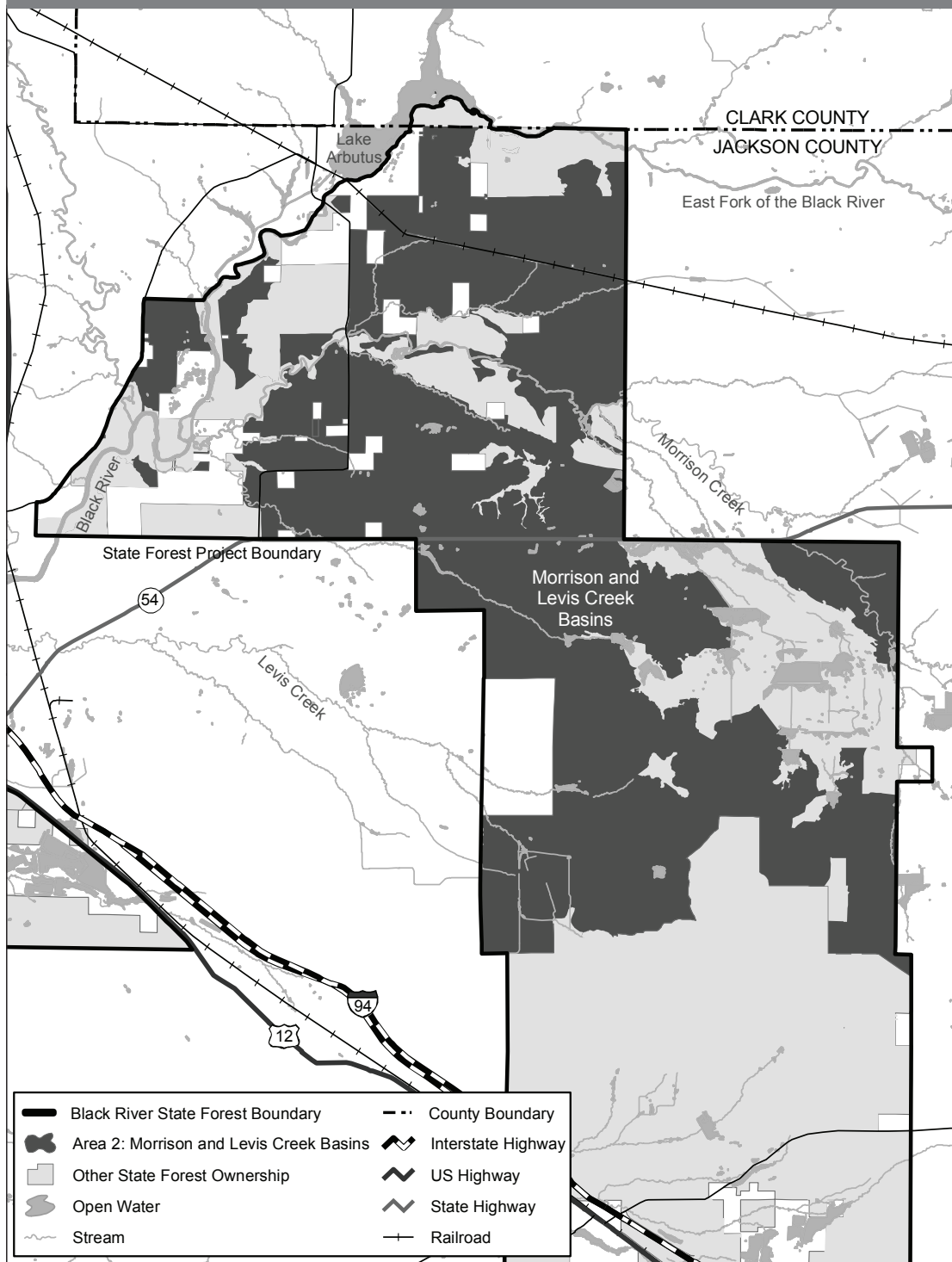
### AREA 2 SUMMARY

- ▲ Increase age diversity of trees in the forest.
- ▲ Manage and maintain long-lived species like oak, white pine, and red pine.
- ▲ Evaluate and consider conversion of plantations to native cover types where appropriate.
- ▲ Connect wetlands with a short-term open landscape through harvesting of early successional species.
- ▲ Maintain and enhance aesthetic and scenic qualities along key transportation corridors and near the Ho-Chunk community.

### AREA 2 LOCATOR MAP



Jack pine harvesting accelerated from 1993-1997 in an effort to salvage budworm infested trees and cut mature stands. Adequate natural regeneration of jack pine occurred on a third of the cutover acreage. Another third of the area regenerated to a mix of scrub oak and aspen with minor components of jack pine and white pine. The balance of the harvested area was planted primarily to jack pine with some red pine and white pine also planted. Survival of these 1990s plantations varied from good to poor with the majority falling in the latter category. Natural regeneration eventually filled the void on these sites, but some small open areas remain. The age distribution of jack pine in this management area is very even and may be approaching a regulated forest condition.

**MAP 2.5 MORRISON AND LEVIS CREEK BASIN**

BRSF311A  
February, 2009

Miles  
0 0.5 1 2  
**Black River State Forest**  
Master Plan

The delineation of boundaries between all of the various land management classification is a general representation of those boundaries. More detailed delineation will be produced at the discretion of the department where authorized activities, management or improved on the ground information is available.







### Long-Term Management Objectives (100 years)

Morrison and Levis Creek Basin will provide a continuous supply of forest products. Jack pine will continue to be the most common cover type. Jack pine acreage will remain the same, but a wider diversity of age classes will be present. White pine acreage and age class diversity will increase. A greater number of large, old white pine trees will be present. Oak and aspen acreage will remain similar to current levels, but oak acreage may increase as red pine plantations are converted to native cover types. Red maple will become a more common component of oak and white pine stands. Ample hunting and wildlife viewing opportunities will be available.

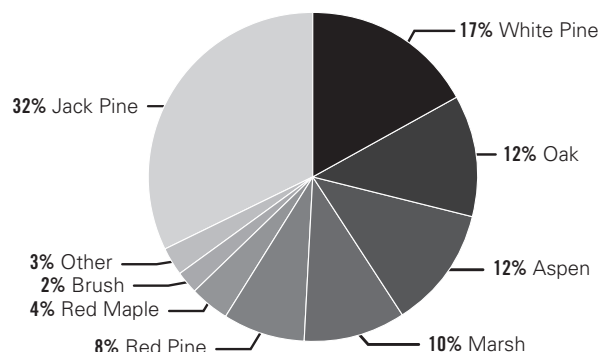
### Short-Term Objectives (50 years)

- Develop and maintain a diversity of ages and stand sizes for aspen and aspen-hardwood mix using General Forest Management Prescriptions.
- Maintain age class distribution of jack pine through harvesting at economic rotations using General Forest Management Prescriptions, realizing that natural conversion to white pine and/or red maple on wet sites will be the tendency.
- Manage, enhance, and maintain red pine plantations throughout the normal economic and/or biological rotation. Consider conversion to native cover types where appropriate.
- Plant open fields acquired through land acquisition with tree species suitable to the site.
- Manage and maintain oak and oak/pine mix through harvesting at economic and/or biological rotations and tend towards a more even age class distribution.
- Harvest early successional species, using General Forest Management Prescriptions, to connect wetlands west and slightly south of the Dike 17 Wildlife Area with short-term open landscapes.
- Maintain and enhance a variety of aesthetic and scenic qualities along State Highway 54, County Trunk K, North Settlement Road, and the Native American (Ho-Chunk) community.

### Area Specific Resource Management Prescriptions

The entire area is managed using “active management” techniques and will be implemented following guidelines in the DNR Silviculture and Forest Aesthetics Handbook. The General Forest Management Prescriptions for each appropriate forest type apply to this management area.

**FIGURE 2.3 MORRISON AND LEVIS CREEK BASIN  
CURRENT LAND COVER**



**TABLE 2.4 MORRISON AND LEVIS CREEK BASIN  
CURRENT AND PREDICTED LAND COVER**

Cover Type	CURRENT		PREDICTED 50 YEAR	
	Acres	% Total	Acres	% Total
<b>Forested Types</b>				
Jack Pine	9,256	32%	9,153	31%
White Pine	5,123	17%	5,441	19%
Aspen	3,470	12%	3,588	12%
Oak	3,433	12%	3,092	11%
Red Pine	2,309	8%	2,109	7%
Red Maple	1,319	4%	1,495	5%
<b>Non-forested Types</b>				
Marsh	3,027	10%	2,990	10%
Other	925	3%	884	3%
Brush	488	2%	598	2%
<b>Total</b>	<b>29,350</b>	<b>100%</b>	<b>29,350</b>	<b>100%</b>





## AREA 3: ROBINSON CREEK BASIN

This area of 14,198 acres stretches from the Monroe County line north to the northern slopes of Overmeyer Hills to a few isolated small hills along the western property boundary.

This area is part of the central sand plain of eastern Jackson County, which has level topography within the basin and is surrounded by Overmeyer Hills, Rudd Hills, and the Millston Ridge. This forest production area has the greatest relief on the state forest. Robinson Creek headwaters lies just east of the forest boundary and flows west through a private cranberry operation and is joined by Ketchum Creek and Glenn Creek before leaving the state forest on its way to the Black River.

State Highway 12 and I-94 transect the lower southwest third of the forest at a northwest to southeast angle. County Highway O runs east/west through the state forest while North Settlement Road, a town road designated as a Rustic Road, connects Highway O with Highway 54. The unincorporated village of Millston lies within the boundary of the state forest. All the routes mentioned above require aesthetic and scenic management considerations in all forestry operations.

### Description of the Forest Resource

This area is comprised of both dry upland and moist to wet lowland forest. The predominant forest cover type is white pine, mostly of natural origin dating back to about the 1900s, growing on dry as well as moist sandy soils. Natural jack pine has gone through a complete harvest rotation. As with the Morrison and Levis Creek Basins Management Area, the jack pine forest became established in the 1930s following re-settlement and wildfire protection and suppression. Accelerated harvest of jack pine occurred between 1993 and 1997 to salvage budworm infested trees, with subsequent natural regeneration and supplemental planting bringing the forest to its current state. The age distribution of jack pine is very even and may be approaching a regulated forest condition. The age distribution of white pine is varied ranging from 1 to 100 years.

The hilly terrain supports a decent oak forest that varies from pure red oak to mixed red, white, and black oak to a range of oak, pine, and red maple mixes on dry to dry-mesic sites. The oak age distribution ranges from 60 to 100 years.

### AREA 3 SUMMARY

- ▲ Develop and maintain age diversity of trees in the forest.
- ▲ Evaluate and consider conversion of plantations to native cover types where appropriate.
- ▲ Manage and maintain long-lived species like oak, white pine, and red pine.
- ▲ Maintain and enhance aesthetic and scenic qualities along key transportation corridors.

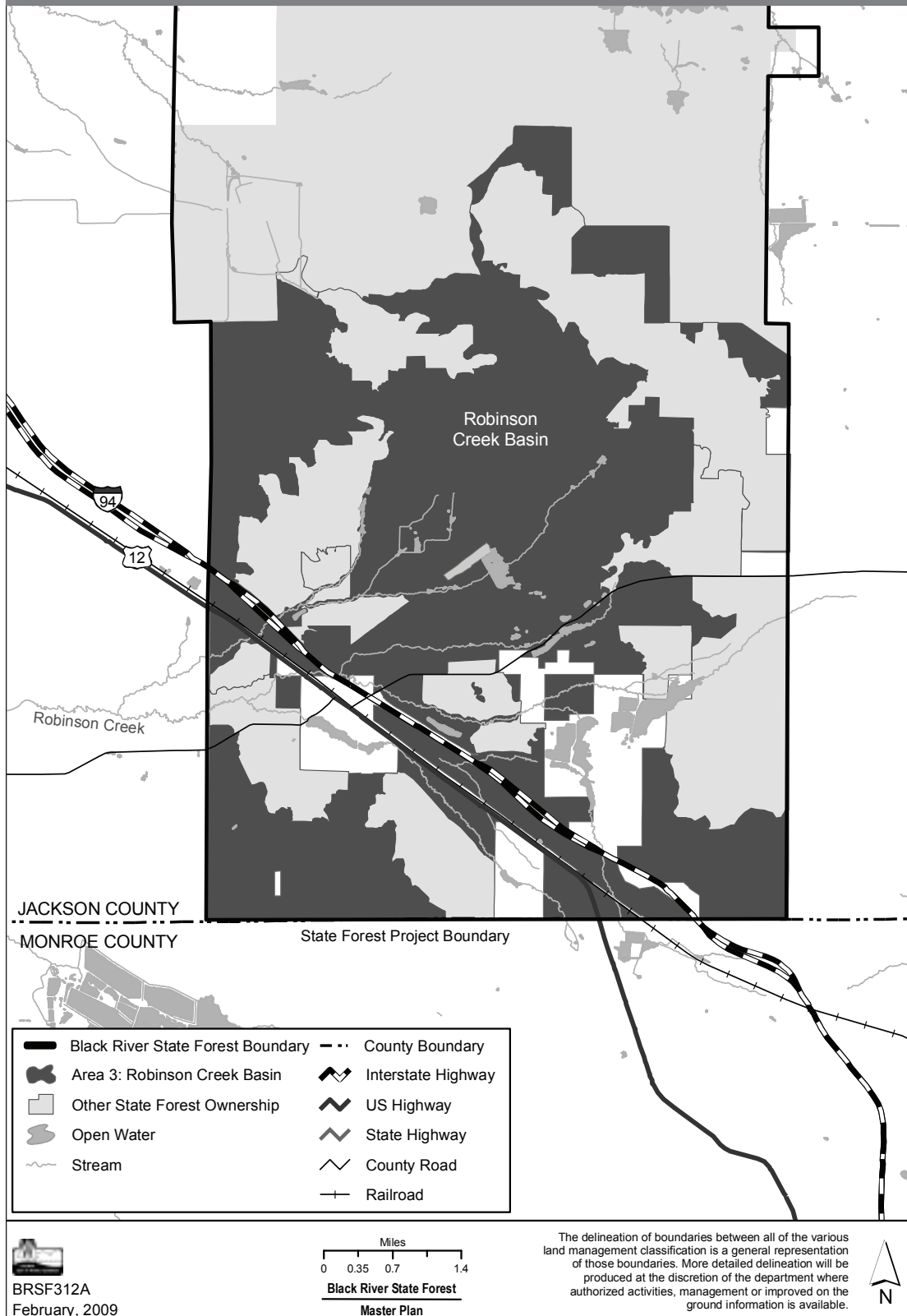
### AREA 3 LOCATOR MAP







MAP 2.6 ROBINSON CREEK BASIN







### Long-Term Management Objectives (100 years)

Robinson Creek Basin will provide a continuous supply of forest products. White pine will continue to be the most common cover type, with an increase in acreage, age class diversity, and in the presence of large, older trees. Oak acreage will increase slightly and will have a wider diversity of age classes. Both the oak and white pine cover types will benefit from the conversion of red pine plantations to native cover types. Red maple will become a more common component of oak and white pine stands. Aspen, jack pine, and tamarack stands will be present, but in small numbers. Ample hunting and wildlife viewing opportunities will be available.

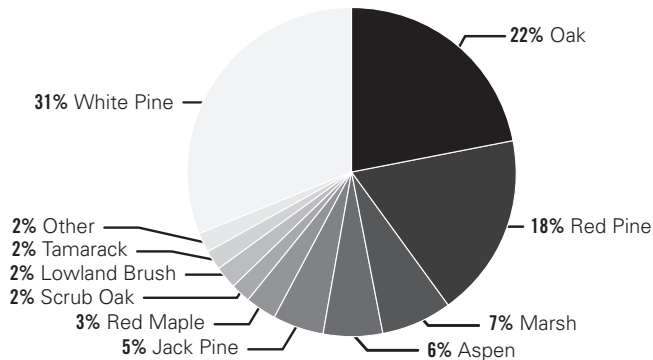
### Short-Term Objectives (50 years)

- Develop and maintain a diversity of ages and stand sizes for aspen and aspen-hardwood mix using General Forest Management Prescriptions.
- Maintain age class distribution of jack pine through harvesting at economic rotations using General Forest Management Prescriptions realizing that natural conversion to white pine and/or red maple on wet sites will be the tendency.
- Manage, enhance, and maintain red pine plantations throughout the normal economic and/or biological rotation. Consider conversion to native cover types where appropriate.
- Plant open fields acquired through acquisition with tree species suited for the site.
- Manage and maintain oak and oak/pine mix through harvesting at economic and/or biological rotations and tend towards a more even age class distribution.
- Manage red oak on dry mesic sites on an economic and/or biological rotation for maximum quality and quantity of timber. Regenerate stands with the highest red oak component possible given that red maple or white pine may out compete oak.

### Area Specific Resource Management Prescriptions

The entire area is managed using "active management" techniques and will be implemented following guidelines in the DNR Silviculture and Forest Aesthetics Handbook. The General Forest Management Prescriptions for each appropriate forest type apply to this management area.

**FIGURE 2.4 ROBINSON CREEK BASIN  
CURRENT LAND COVER**



**TABLE 2.5 ROBINSON CREEK BASIN  
CURRENT AND PREDICTED LAND COVER**

Cover Type	CURRENT		PREDICTED 50 YEAR	
	Acres	% Total	Acres	% Total
<b>Forested Types</b>				
White Pine	4,431	31%	4,527	32%
Oak	3,109	22%	2,829	20%
Red Pine	2,562	18%	2,546	18%
Aspen	785	6%	849	6%
Jack Pine	704	5%	750	5%
Red Maple	395	3%	566	4%
Scrub Oak	341	2%	282	2%
Tamarack	221	2%	283	2%
<b>Non-forested Types</b>				
Marsh	990	7%	1,001	7%
Lowland Brush	275	2%	282	2%
Other	385	2%	283	2%
<b>Total</b>	<b>14,198</b>	<b>100%</b>	<b>14,198</b>	<b>100%</b>

